# Underwater Housing for Olympus OM-D E-M5

## User Manual

# Table of Contents


## 1. Introduction

## 2. Specifications

## 3. Function Controls

## 4. Set-up Instructions

## 5. Use & Care of Housing

## 6. Service

## 7. Warranty


## 1.Introduction

Our housing for the popular Olympus OM-D E-M5 is machined from a solid block of marine grade aluminum, anodized and finally three coats of paints are applied to protect it from the corrosive environment that the housing will be used in. The housing is equipped with control buttons accessing all camera functions, a fibre optics cable connector for external flash and interchangeable ports for different lenses. The clear acrylic back cover allows checking on the camera much easier. For closure, the double O-ring and stainless steel locking latch design provide ease of use and added security. An extensive line of accessories like arms, filters and fibre optics cable is also available from 10Bar. Our housing for the OMD extends the camera’s outstanding performance from land to beneath the sea.

## 2. Specifications

| | |
|---|---|
| Tested Pressure | Housings Individually Tested to 10 Bar (90 m / 300 ft.)<br>Recommended Working Pressure : 60 m |
| Closure Design | Double O-ring, Stainless Steel Locking Latch |
| Body Material | 6061 Aluminum, Acrylic |
| Overall Size | 185 x 172 x 165mm (L x W x H) with 12-50mm Lens Port.<br>180 x 172 x 165mm (L x W x H) with 60mm Lens Port.<br>121 x 172 x 165mm (L x W x H) with 14/20mm Lens Port. |
| Total Weight | Approximately 1.90kg (Housing with 12-50mm Lens Port)<br>Approximately 1.60kg (Housing with 60mm Lens Port)<br>Approximately 1.55kg (Housing with 14/20mm Lens Port) |
| Buoyancy (with Camera) | Slightly Negative in Salt Water |
| What's in The Box | Spare Main O-rings + O-ring Removal Tool<br>Silicone O-ring Grease<br>Universal Housing Opening Key<br>Padded Carrying Bag<br>Nylon Lanyard |
| Optional Accessories | Port for 7-14, 9-18, 12-50, 14-42, 14-42 II, 14-42IIR, 14-45 Zoom Lens<br>Port Conversion Kit for 60mm Macro Lens<br>Dome Port for 8mm Wide Angle Lens<br>Flat Port for 14/20mm Lens<br>Red Filter for 9-18, 12-50, 14-42, 14-42 II, 14-42IIR, 14-45 Zoom Lens Port<br>Red Filter for 14/20/60mm Macro Lens Port<br>Extension Rings<br>Extension Arm for Strobe or Video Light |

# 3. Function Controls

## Function Control Buttons

**(1)** Shutter

**(2)** Movie

**(3)** Fn2

**(4)** Sub Dial

**(5)** Focus Control

**(6)** Zoom Control

**(7)** L-Fn

**(8)** Macro

**(9)** Mode Dial

**(10)** Main Dial

**(11)** LV

**(12)** Playback

**(13)** Fn1

**(14)** Menu

**(15)** Info

**(16)** Up

**(17)** Left

**(18)** OK

**(19)** Right

**(20)** Erase

**(21)** Down

**(22)** Power On/Off

**(D1)** Zoom Control

**(D2)** Focus Control

## Control Buttons Details

1. **Shutter**
   Press down to activate the shutter.
2. **Movie**
   Press to start or stop recording video.
3. **Fn2**
   Press to activate.
4. **Sub Dial**
   Turn to rotate Sub Dial.
5. **Focus Control**
   Press and turn to manually adjust the focus.
6. **Zoom Control**
   Press and turn to manually adjust the zoom.
7. **L-Fn**
   Press to activate the L-Fn function on the Olympus 12-50 mm lens
8. **Macro**
   Press to activate the Macro function on Olympus 12-50 mm lens.
9. **Mode Dial**
   Turn to rotate the Mode Dial.
10. **Main Dial**
    Turn to rotate the Main Dial.
11. LV
    Press to activate the LV button.
12. **Playback**
    Press to activate.
13. **Fn1**
    Press to activate.
14. **Menu**
    Press to display the menus.
15. **Info**
    Press to activate the Info button.
16. **Up**
    Press to activate.
17. **Left**
    Press to activate.
18. **OK**
    Press to activate the OK button.
19. **Right**
    Press to activate.
20. **Erase**
    Press to delete an image.
21. **Down**
    Press to activate.
22. **Power On / Off**
    - Press to power on or off.
    - Turn the Power On/Off button so that the white dot is lined up with the “Off” marking on the camera when installing the acrylic back cover onto the housing.

**D1**. Zoom Control
Press and turn to manually adjust the zoom.

**D2**. Focus Control
Press and turn to manually adjust the focus.

**Please consult the Olympus OM-D EM-5 camera instruction manual for details of camera functions and settings accessed by each control button.**

# 4.Set-up Instructions

## Special Note on Responsibility for Watertight Integrity

Each housing is individually inspected and hydrostatically tested in the factory. However, the responsibility for ensuring the integrity of the watertight seal lies entirely with the user. 10Bar accepts no liability for damage to, or loss of any equipment used with, or placed inside the housing. It is highly recommended that an in-water test of the housing without the camera be carried out before the first dive, after changing ports or alteration of housing configuration. This simple test can be done by lowering the housing with ballast to the expected diving depth and then retrieved to check for leaks.

## Stainless Steel Locking Latch

- The clear acrylic lid is secured to the housing by three Stainless Steel Locking Latches.
- Locking Latches are simple, yet extremely secure mechanisms for locking down the housing lid.

## Opening the Lid

Open the lid as illustrated below.

1

Latch in Locked Position

2

Lift Tab at End of Lever Out and Up to Unlock

3

Align the Catch Under the Hook

4

Lift Tab at End of Lever to Push the Hook and Lid Up

## Mounting Gear Rings on the Lens for Manual Focus and Zoom

- Gear rings have to be installed in order to manually turn the zoom and focus rings on the lens.

- Due to the lens mount design on the OM-D 5, our standard port **M77 x 100DZ** cannot support manual focus or zoom function for the following lenses:

Olympus M. ZUIKO 14-42 f/3.5-5/6 II Lens
Olympus M. ZUIKO 14-42 f/3.5-5/6 II R Lens
Olympus M. ZUIKO 14-42 f/3.5-5/6 Lens
Panasonic LUMIX G VARIO 7-14 f/4.0 ASPH Lens.
Panasonic LUMIX G VARIO 14-42 f/3.5-5.6 POWER ZOOM O.I.S.Lens

### Olympus M. ZUIKO Digital ED 9-18mm f/4.0-5.6 Lens

- Slide the Focus Gear Ring onto the lens from the direction as shown by the red arrows below.
- Use **Focus Control Button (D2)** on the housing to manually adjust the focus.

### Panasonic LUMIX G VARIO 14-45 f/3.5-5.6 ASPH MEGA O.I.S.Lens

- Slide the Zoom Gear Ring onto the lens from the direction as shown by the red arrows below.
- Use **Zoom Control Button (6/D1)** on the housing to manually adjust the zoom.

## Panasonic LUMIX G VARIO 14-42 f/3.5-5.6 ASPH MEGA O.I.S.Lens

- Slide the Zoom and Focus Gear Rings onto the lens from the direction as shown by the red arrows below.
- Use **Zoom Control Button (5/D2)** on the housing to manually adjust the zoom.
- Use **Focus Control Button (6/D1)** on the housing to manually adjust the focus.

## Olympus 12-50mm f/3.5-6.3 EZ ED MSC Lens

- Slide the Zoom and Focus Gear Rings onto the lens from the direction as shown by the red arrows below.
- Use **Zoom Control Button (6)** on the housing to manually adjust the zoom.
- Use **Focus Control Button (5)** on the housing to manually adjust the focus.

**Dome Port for 8mm Wide Angle Lens**

**60mm Macro Lens with Port Conversion Kit**

## Replacing the Lid

- When replacing the lid, please make sure the latch is properly locked as illustrated below.
- After locking the lid, make a final visual inspection of the main O-ring for contamination.

**Note: If the O-ring has formed a good seal, a continuous thin black line, about 0.5 to 1mm in width should be visible where the O-ring is in contact with the lid. Follow this line all the way round the lid as a final check that the seal is good.**

## Maintaining the O-rings

The O-ring is the main seal in keeping sea water out of the housing. It is an effective barrier only if the O-ring is properly maintained. The O-ring should be inspected before every dive. The following information is provided for your guidance in using and maintaining the O-ring.

- There are two O-rings, one on the lid and one on the housing, which require regular maintenance.
- Remove the O-rings periodically for inspection.
- It is not necessary to remove, clean and re-install the O-rings after every dive provided the O-rings are not contaminated.
- If the housing is to be opened between dives for changing memory card or re-charging battery, make sure the outside of the housing is thoroughly towel dried before opening.
- After servicing the camera, replace the lid right away.
- Before replacing the lid, check the O-rings and O-ring recesses, making sure that no contaminants such as dust, hair, salt, sand etc., has fallen onto them.
- The O-rings should be inspected every time the lid is opened and maintenance carried out only if necessary.

## Inspection, Cleaning and Re-installation of the O-rings

### Tools

- Soft cotton buds that are free of chemicals or contaminants such as loose fibers.
- Silicone grease supplied with the housing or other types of silicone grease specifically for underwater camera equipment can also be used.

### Procedure

The following procedure should be carried out on a clean, firm, level surface (e.g., on a table) to prevent slipping especially when diving from a boat.

- The O-ring can be extracted using the O-ring extractor tool that came with the housing, or push with the flats of both thumbs or index fingers to gently stretch the O-ring on two adjacent sides thus making a small loop protruding around the corner. The loop can then be grasped and the O-ring pulled over the lip.

- Clean the O-ring recess (the square groove where the O-ring sits) with a cotton bud.
- Inspect the surface of the O-ring for contaminants and damages such as cuts or tears. This should be done visually and by running the O-ring between thumb and index finger, sensing any textural abnormalities on the surface.

- **If the O-ring is damaged or suspected of being damaged, discard it immediately**.
- Spare O-rings are supplied with your housing, or replacement O-rings can be ordered from 10Bar.
- If the O-ring is contaminated, clean it with a clean cloth.
- Re-inspect the O-ring after cleaning.
- Once the O-ring has been inspected and verified good for use, apply and distribute evenly a **SMALL** amount of silicone grease to the surface of the O-ring.
- Replace the O-ring into the groove.
- Run a finger over the O-ring to make sure it is seated properly.

# 5.Use & Care of Housing

## Pre Dive Function Check

- Check O-ring is in the groove on the housing and the clear acrylic lid.
- Check housing is closed properly.
- Check battery and memory card status on the LCD display.
- Check control knobs and zoom function.
- Check if sync port is properly connected or rubber protective cap is securely in place.

## General Operations

- The control levers and push buttons consist of internal double O-ring seals on a stainless steel shaft. This arrangement is very reliable. As a precaution, avoid excessively rapid movements when operating the controls, causing possible deformation of the O-rings.
- Also please allow for the fact that the camera takes a second or two to power up.
- If the camera does not appear to respond to a control button activation, make sure that no other control buttons on the housing are pressed, thus locking out other actions.
- Always wear the wrist strap; it is easy to inadvertently let go of the housing if you are distracted.
- The body & lid of the housing are made of 6061 aluminum and acrylic respectively. 6061 aluminum is selected for its outstanding corrosion resistance, strength, and toughness, while acrylic for its excellent transparency and having a high gloss surface. Although acrylic and 6061 aluminum have good resistance to weathering, long-term exposure to sunlight should be avoided.

**Avoid submerging the housing in hot water for a prolonged period of time or in a cleansing tank which is directly under a hot sun where the water may get heated.**

## Cleaning & Storage

- It is good practice to rinse off your housing with fresh water after every dive.
- Avoid exposure to fine sand.
- After a series of 10 or more dives, e.g., after a dive holiday, the housing should be immersed in warm water for 2-3 hours to dissolve any salt deposits that may have built up.
- No chemical cleaners should ever be used.

**Important!!!** **For long term storage, please remove the O-rings from the housing body and lid.**

## Transportation

All external attachments should be removed and the housing wrapped in foam or bubble wrap for transportation.

## Accidents

The impact resistance of our aluminum housing is excellent. In the event that your housing encountered an impact force (e.g., being dropped), the alignment of the housing may have been altered. It is essential that you stop diving with the housing and send it to 10Bar immediately for servicing. Put a note inside the housing stating the nature of the accident to assist our technicians in assessing the damage.

# 6.Service

To ensure the continued performance of your housing, it should be sent in to us for servicing annually, or after every 200 dives, whichever is earlier. A full service will include:

- Inspect all components for wear or damage and report if repair is necessary.
- Clean all sealing surfaces.
- Replace all O-rings.
- Hydrostatic pressure test to 10 Bar.

**Note: The cost of Annual Housing Service is available upon request and replacement of damaged components may require additional cost.**

# 7.Warranty

**The warranty is valid for two years from the date of purchase. The warranty applies only to the housing itself. 10Bar does not accept any liability either implicit or otherwise for any equipment housed inside, or used together with the housing. In the event of the housing flooded within the warranty period, 10Bar will repair or replace the housing. Disassembly of the housing will invalidate the warranty. To register a warranty, please complete the form below and return a copy by fax, email or mail to:**


10Bar Underwater Housings
Unit D, 5/F., Wing Hin Factory Building
31-33 Ng Fong St., San Po Kong
Kowloon
Hong Kong

**Tel.:** (852) 2573 3228
**Fax.:** (852) 2811 9180
**Email:** service@10bar.com
**Website:** http://www.10bar.com


**(Copy to be retained by user)**

| | |
|---|---|
| **Housing Type :** | **Date of Purchase :** |
| **Serial Number : (Labeled inside housing)** | **Dealer :** |
| **Owner's Name :** | **e-mail :** |
| **Owner's Address :** | **Tel :**<br><br>**Fax :** |

## Please keep this manual for future reference

(Note: due to continuous improvements on our products, the latest model of the housing may differ slightly from those described in this document).

**(Copy to be returned to 10 Bar Underwater Housings)**

| | |
|---|---|
| **Housing Type :** | **Date of Purchase :** |
| **Serial Number : (Labeled inside housing)** | **Dealer :** |
| **Owner's Name :** | **e-mail :** |
| **Owner's Address :** | **Tel :**<br><br>**Fax :** |